

## **ABSTRACT**

Prediction of a channel capacity is accomplished based on a TDR echo without explicitly estimating the topology of the line. The prediction is based on obtaining a measured TDR echo, determining a theoretical TDR echo for a plurality of loop lengths, estimating the equivalent TDR length based on an optimization, updating the equivalent TDR length and utilizing the updated TDR length to predict one or more of the upstream and downstream data rates.